If you have any questions please call Mr. William Buller of my staff at (312) 886-4568.

Sincerely yours

Joseph M. Boyle

Joseph M. Boyle, Chief
RCRA Enforcement Branch

cc: Kevin Lesko, IEPA
Carlos Sernas, Weston

ATTACHMENT I
COMMENTS ON PRIVATE WELL SAMPLING PLAN - FEBRUARY 1993

Section 1-3. Show the locations of the wells listed in tables 1-1 through 1-4 on a scaled map.

For the wells listed in tables 1-1 through 1-4 provide the following additional information: compounds analyzed, analytical test methods used and detection limits, sampling and preservation procedures.

Section 2.1. Provide attestation as required in Section VI.A.1. of the AOC. The attestation shall cover the area of potential contamination and include a map which shows all private wells within the potential area of contamination.

The well sampling area should be delineated with boundaries that completely enclose the area and include all critical wells. The property at Non-responsive Non-responsive should be included.

Section 2.3. Hydrochloric acid is proposed for volatile organic compounds (VOCs) sample preservation. This method of preservation is not recommended in "RCRA Groundwater Monitoring Technical Enforcement Guidance Document U.S. EPA - September 1986". Provide appropriate reference for this method of sample preservation or follow the above U.S. EPA guidance document.

Section 2.5. This paragraph should include the statement that analysis of private well samples will include all VOCs of Table 2-2.

Analytical methods for VOCs shall be those approved by U.S. EPA and which have detection limits equal to or below the Maximum Contaminant Level specified by U.S. EPA, or the concentration level established by the criteria given in Section VI. A.2. of the AOC.

The following inorganic analytes shall be included in the sample analysis: nickel, copper, lead, chromium, cadmium, arsenic, mercury, barium, cyanide, sulfate, and nitrate. Include a table which presents the analytical and preservation methods to be employed for all analytes.

Provide groundwater analytical data (with appropriate quality assurance) or rationale to justify exclusion of the 40 CFR 264 Appendix IX parameters not listed in Table 2-2.

Section 2.6 Identify laboratory(s) to be used for analyses of samples.

Section 3.1 Omit this section: the schedule and dictates stated in Section VI.2.and 3. of the AOC shall be followed.

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

D27

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

March 31, 1993

Mr. Bill Buller
United States Environmental Protection Agency
Region V
RCRA Enforcement Branch, (HRE-8J)
77 West Jackson Boulevard
Chicago, IL 60604

RE: 1110900003 -- McHenry County
Techalloy, Inc./Union
ILD005178975

Dear Mr. Buller:

The Illinois Environmental Protection Agency (IEPA) would like to provide the following comments on the Private Well Sampling Plan (PWSP), prepared in accordance with the Administrative Order of Consent issued to Techalloy (TA) by USEPA, and submitted by Weston on behalf of TA. The PWSP was dated February 25, 1993 and received by the IEPA on February 26, 1993.

1. In Section 1.3 of the PWSP TA indicates that the analytical results for the four rounds of sampling of the private wells is summarized in Tables 1-1 through 1-4. This data can not be evaluated properly without additional information. At a minimum, the following information should be provided:

   a. the locations of the wells should be identified on a scaled map which includes all private wells along with the known extent of the contaminate plume;

   b. the analytical test method used, detection limits achieved, and compounds analyzed must be identified for each sampling event; and

   c. a description of the sampling procedures, and sample preservation procedures.

2. In Section 2.1 of the PWSP, TA indicates that a well survey was conducted to determine the locations of private wells downgradient of the facility. TA indicates that the wells sampled in the June 1990 to September 1992 sampling event were

not identified in the ISWS database or the ISGS database, i.e., the State has no record of them. TA identified the wells to be sampled based upon the response to an announcement during a city meeting and a notice in a local paper, which indicated that if Union residences had a water well and wanted the well sampled they should contact TA. TA does not indicate if any wells were identified, or if the area was investigated to determine if wells are present to the north of Union in the area bounded by Non-responsive Non-responsive The results of the well survey, i.e. the location of all wells downgradient of the facility that may potentially be impacted by the groundwater plume, should be provided in order to allow proper evaluation of the proposed boundaries of the PWSP.

3. In a correspondence from the Village of Union, dated 12/5/90, from Phyllis Schauer, Village Clerk, the residences which use private wells are identified, see Attachment 1. Comparing the location of the private wells and the location of the plume, as shown in Figure 1-2 of the PWSP, it would appear as though the private well located at 6105 Park Street should be sampled as part of the Private Well Sampling PWSP. This well is closer to the plume than all of the other wells identified in Figure 1-2 of the PWSP, except well 1 and 7 (as identified in Figure 1-2).

4. TA proposes to sample all water wells east of Main and Park Streets. It appears as though this is the only boundary defined by TA. Park Street is not identified on the drawings of Union provided by TA. The boundaries of the sampling PWSP have not been clearly identified.

5. In Section 2.3 of the plan TA states that the groundwater samples will be preserved with hydrochloric acid. Acidification of groundwater samples is not required, according to Table 4-1 of the RCRA Groundwater Monitoring Technical Enforcement Guidance Document (OSWER - 9950.1) for samples which will be analyzed for VOCs. Justification for the addition of hydrochloric acid to the samples should be provided.

6. In Section 2.5 of the plan TA proposes to analyze the groundwater samples using Method 8240 of SW-846. This Method is not adequate for all of the contaminates of concern as the Method 8240 detection limit is greater than MCL for some of the contaminates. In these cases an analytical result of non-detect could not demonstrate that the MCL was not exceeded.

7. TA should provide justification of the analytical parameters chosen. Does the proposed parameter list include all of the contaminates of concern and the associated degradation products?

8. In Section 3.0 TA states, "The wells closest to the groundwater plume with analytical results indicating detection of constituents of concern at or above the MCL should be sampled on a semi-annual basis until the well is secured or until USEPA approves termination of the sampling and analyses." In accordance with Section VI. Paragraph A.2. TA must perform semi-annual sampling/analysis on all wells within the boundaries of the U.S. EPA approved PWSP.

   Section VI. Paragraph A.2. states, "The requirements of this paragraph shall apply to each property, with one or more wells, located within the well sampling area boundaries of the U. S. EPA approved PWSP." Later in the same paragraph it is stated, "After the initial well sampling, the Respondent [TA] shall perform semi annual sampling/analysis of the wells in accordance with the PWSP until the wells are secured or until U.S. EPA approves termination of sampling/analysis."

9. TA failed to provide the following, as required by Section VI. Paragraph A.1.:

   a. the attestation that the list of properties is complete and up to date;

   b. data that establish groundwater background levels of constituents;

Should you have any questions regarding this matter, please contact Kevin D. Lesko at 217/524-3271.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

KDL JK
KDL:ta-pwsp

cc: Maywood Region
Division file -- RCRA closure
Jerry Kuhn
Kenn Liss
Ron Hewitt
Stan Black #24
Paul Jagiello -- DLC Maywood Region

D27

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19 July 1993

Mr. William Buller
U.S. Environmental Protection Agency
Region V
RCRA Enforcement Branch (HRE-8J)
77 West Jackson Boulevard
Chicago, IL 60604

Work Order No.: 01989-010-001

Re: Private Well Sampling Plan (PWSP) at the Techalloy Facility

Dear Mr. Buller:

This letter documents our phone conversation on 14 July 1993. The U.S. EPA's letter from Mr. Joseph M. Boyle to Mr. Henry Lopes and dated 2 July 1993 grants an approval of the Private Well Sampling Plan with modifications. Techalloy agrees to the modifications with the exception of the addition of chloride to the list of parameters to analyze. Techalloy disagrees with analyzing for chloride since this is a waste constituent associated with the facility located west of Techalloy. Techalloy does not want to be responsible for any actions dictated by the Administrative Order on Consent if chloride were to exceed an applicable drinking water standard.

During the phone conversation, Mr. Buller agreed to not include chloride within the constituent list of parameters to analyze. Currently, Techalloy has informed by letter each of the 13 private well owners. It is anticipated that these wells will be sampled within the next two weeks.

If you have any questions or would like to further discuss the private well sampling please do not hesitate to contact me at (708) 918-4000.

Very truly yours,

ROY F. WESTON, INC.

Carlos J. Serna, P.G.
Senior Project Manager

CJS:sk
cc: Henry Lopes - Techalloy
Kevin Lesko - IEPA

CH01\PUBLIC\HOME\KITTOS\WPDATA\SERNA\BULLERJ16

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18 June 1993

Mr. William Buller
U.S. Environmental Protection Agency
Region V
RCRA Enforcement Branch (HRE-8J)
77 W. Jackson Boulevard
Chicago, Illinois 60604

Work Order No.: 01989-009-001

Re: Private Well Sampling Plan, Appendix F
Techalloy Company, Union, Illinois
ILD 005 178 975

Dear Mr. Buller:

Roy F. Weston, Inc. (WESTON®) is submitting Quality Assurance/Quality Control (QA/QC) information and Standard Operating Procedures (SOPs) for the analytical methods specific to the Private Well Sampling Plan (PWSP) for Techalloy Company, Inc. of Union, Illinois. Consistent with your letter of 20 April 1993 to Henry Lopes and your phone conversation with Bob Gilbertsen of WESTON on the afternoon of 14 May 1993, this information has been prepared as an addendum (Appendix F) to the RCRA Facility Investigation Draft Quality Assurance Project Plan (QAPP) for Techalloy Company dated April 1993. Please incorporate Appendix F into the Techalloy QAPP.

If you have any questions or require any additional information please do not hesitate to contact WESTON at (708) 918-4000.

Very truly yours,

ROY F. WESTON, INC.

Carlos J. Serna, P.G.
Senior Project Manager

CJS:ll

Enclosure
cc: Kevin Lesko - IEPA

CH01\PUBLIC\WO\W1500\10873.LTR

D27

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

March 31, 1993

Mr. Bill Buller
United States Environmental Protection Agency
Region V
RCRA Enforcement Branch, (HRE-8J)
77 West Jackson Boulevard
Chicago, IL 60604

RE: 1110900003 -- McHenry County
Techalloy, Inc./Union
ILD005178975

Dear Mr. Buller:

The Illinois Environmental Protection Agency (IEPA) would like to provide the following comments on the Private Well Sampling Plan (PWSP), prepared in accordance with the Administrative Order of Consent issued to Techalloy (TA) by USEPA, and submitted by Weston on behalf of TA. The PWSP was dated February 25, 1993 and received by the IEPA on February 26, 1993.

1. In Section 1.3 of the PWSP TA indicates that the analytical results for the four rounds of sampling of the private wells is summarized in Tables 1-1 through 1-4. This data can not be evaluated properly without additional information. At a minimum, the following information should be provided:

   a. the locations of the wells should be identified on a scaled map which includes all private wells along with the known extent of the contaminate plume;

   b. the analytical test method used, detection limits achieved, and compounds analyzed must be identified for each sampling event; and

   c. a description of the sampling procedures, and sample preservation procedures.

2. In Section 2.1 of the PWSP, TA indicates that a well survey was conducted to determine the locations of private wells downgradient of the facility. TA indicates that the wells sampled in the June 1990 to September 1992 sampling event were

not identified in the ISWS database or the ISGS database, i.e., the State has no record of them. TA identified the wells to be sampled based upon the response to an announcement during a city meeting and a notice in a local paper, which indicated that if Union residences had a water well and wanted the well sampled they should contact TA. TA does not indicate if any wells were identified, or if the area was investigated to determine if wells are present to the north of Union in the area bounded by Non-responsive Non-responsive The results of the well survey, i.e. the location of all wells downgradient of the facility that may potentially be impacted by the groundwater plume, should be provided in order to allow proper evaluation of the proposed boundaries of the PWSP.

3. In a correspondence from the Village of Union, dated 12/5/90, from Phyllis Schauer, Village Clerk, the residences which use private wells are identified, see Attachment 1. Comparing the location of the private wells and the location of the plume, as shown in Figure 1-2 of the PWSP, it would appear as though the private well located at Non-responsive should be sampled as part of the Private Well Sampling PWSP. This well is closer to the plume than all of the other wells identified in Figure 1-2 of the PWSP, except well 1 and 7 (as identified in Figure 1-2).

4. TA proposes to sample all water wells east of Main and Park Streets. It appears as though this is the only boundary defined by TA. Park Street is not identified on the drawings of Union provided by TA. The boundaries of the sampling PWSP have not been clearly identified.

5. In Section 2.3 of the plan TA states that the groundwater samples will be preserved with hydrochloric acid. Acidification of groundwater samples is not required, according to Table 4-1 of the RCRA Groundwater Monitoring Technical Enforcement Guidance Document (OSWER - 9950.1) for samples which will be analyzed for VOCs. Justification for the addition of hydrochloric acid to the samples should be provided.

6. In Section 2.5 of the plan TA proposes to analyze the groundwater samples using Method 8240 of SW-846. This Method is not adequate for all of the contaminates of concern as the Method 8240 detection limit is greater than MCL for some of the contaminates. In these cases an analytical result of non-detect could not demonstrate that the MCL was not exceeded.

7. TA should provide justification of the analytical parameters chosen. Does the proposed parameter list include all of the contaminates of concern and the associated degradation products?

8. In Section 3.0 TA states, "The wells closest to the groundwater plume with analytical results indicating detection of constituents of concern at or above the MCL should be sampled on a semi-annual basis until the well is secured or until USEPA approves termination of the sampling and analyses." In accordance with Section VI. Paragraph A.2. TA must perform semi-annual sampling/analysis on all wells within the boundaries of the U.S. EPA approved PWSP.

   Section VI. Paragraph A.2. states, "The requirements of this paragraph shall apply to each property, with one or more wells, located within the well sampling area boundaries of the U. S. EPA approved PWSP." Later in the same paragraph it is stated, "After the initial well sampling, the Respondent [TA] shall perform semi annual sampling/analysis of the wells in accordance with the PWSP until the wells are secured or until U.S. EPA approves termination of sampling/analysis."

9. TA failed to provide the following, as required by Section VI. Paragraph A.1.:

   a. the attestation that the list of properties is complete and up to date;

   b. data that establish groundwater background levels of constituents;

Should you have any questions regarding this matter, please contact Kevin D. Lesko at 217/524-3271.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

KDL JK
KDL:ta-pwsp

cc: Maywood Region
Division file -- RCRA closure
Jerry Kuhn
Kenn Liss
Ron Hewitt
Stan Black #24
Paul Jagiello -- DLC Maywood Region

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18 June 1993

Mr. William Buller
U.S. Environmental Protection Agency
Region V
RCRA Enforcement Branch (HRE-8J)
77 W. Jackson Boulevard
Chicago, Illinois 60604

Work Order No.: 01989-009-001

Re: Private Well Sampling Plan, Appendix F
Techalloy Company, Union, Illinois
ILD 005 178 975

Dear Mr. Buller:

Roy F. Weston, Inc. (WESTON®) is submitting Quality Assurance/Quality Control (QA/QC) information and Standard Operating Procedures (SOPs) for the analytical methods specific to the Private Well Sampling Plan (PWSP) for Techalloy Company, Inc. of Union, Illinois. Consistent with your letter of 20 April 1993 to Henry Lopes and your phone conversation with Bob Gilbertsen of WESTON on the afternoon of 14 May 1993, this information has been prepared as an addendum (Appendix F) to the RCRA Facility Investigation Draft Quality Assurance Project Plan (QAPP) for Techalloy Company dated April 1993. Please incorporate Appendix F into the Techalloy QAPP.

If you have any questions or require any additional information please do not hesitate to contact WESTON at (708) 918-4000.

Very truly yours,

ROY F. WESTON, INC.

Carlos J. Serna, P.G.
Senior Project Manager

CJS:ll

Enclosure
cc: Kevin Lesko - IEPA

CH01\PUBLIC\WO\W1500\10873.LTR

JUL 02 1993

HRE-8J

Mr. Henry Lopes
Techalloy Company, Inc.
370 Franklin Turnpike
Mahwah, New Jersey 07430

Re: Private Well
Sampling Plan - May 1993
Techalloy Company, Inc.
ILD 005 178 975

Dear Mr. Lopes:

The United States Environmental Protection Agency (U.S. EPA) has reviewed the revised document "Private Well Sampling Plan" (PWSP) dated May 1993, which was submitted by Techalloy Company, Inc., in accordance with the Administrative Order on Consent, Docket No. V-W-007-93.

The U.S. EPA approves the above referenced document with the following modifications to be incorporated into the PWSP.

- In addition to the nine wells proposed for sampling and analysis, wells 9, 10, 11, and 16, as identified on Figure 1-3 of the PWSP, shall be included. All wells shall be sampled/analyzed semi-annually until U.S. EPA notifies you in writing of a modification to the well list.

- Analytical method SW-846 8010 shall be used for analysis of vinyl chloride.

- Chloride shall be added to the list of inorganic analytes.

- Until the Resource Conservation and Recovery Act (RCRA) Facility Investigation Quality Assurance Project Plan is approved by U.S. EPA, all well sampling procedures shall follow the procedures as given in the May 1993 PWSP, and as applicable, the procedure given in the RCRA Ground-water Monitoring Technical Enforcement Guidance Document, U.S. EPA - September 1986.

Within thirty (30) days of receipt of this letter, Respondent shall submit to the Illinois Environmental Protection Agency, with copies to U.S. EPA, the relevant portions of the Illinois State Water Survey Private Well Database, the Illinois State Geological Survey Database, and the well construction reports of McHenry County Department of Health. All accompanying correspondence and support documents shall be included in this submission.

In the event additional wells near the groundwater contaminant plume are identified by Techalloy Company, U.S. EPA shall immediately be informed, in writing, of the location of such wells.

If you have any questions, please call William Buller, of my staff, at 312-886-4568.

Sincerely yours,

Joseph M. Boyle, Chief
RCRA Enforcement Branch

cc: Kevin Lesko, IEPA
Carkis Sernas, Weston

bcc: Jacqueline Kline, ORC

HRE-8J/WB/be/6/29/93/Filename-Techallo.SP

OFFICIAL FILE COPY

7/1/93

CONCURRENCE REQUESTED FROM REB			
OTHER STAFF	REB STAFF	REB SECTION CHIEF	REB BRANCH CHIEF
6/30/93	6/30/93	6/30/93	7/1/93

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20 May 1993

Mr. William Buller
United States Environmental Protection Agency
Region V
RCRA Enforcement Branch (HRE-8J)
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Submittal of Private Well Sampling Plan
Techalloy Company, Inc. ILD005 178 975

Dear Mr. Buller:

Enclosed please find three copies of the Private Well Sampling Plan (PWSP) for the Techalloy Company located in Union, Illinois. Roy F. Weston, Inc. (WESTON®) has addressed and incorporated into the PWSP each of the agency comments. Attachment 1 provides a brief response to each of these comments.

The attestation as specified in Section VI.A.1 of the Administrative Order on Consent (AOC) has been included and can be found following the title page of this plan. As discussed and presented in the WESTON letter dated 17 May 1993, Techalloy is preparing an addendum to the existing Quality Assurance and Project Plan to address the private well sampling and analysis.

If you have any questions or comments concerning the PWSP please do not hesitate to contact me.

Very truly yours,

ROY F. WESTON, INC.

Carlos J. Serna, P.G.
Senior Project Manager

CJS:sk
Enclosure
cc: Kevin Lesko, IEPA
Henry Lopes, Techalloy
Rick Perlick, Techalloy
Jack Thorsen, WESTON
Dennis Harkawik, LeBoeuf, Lamb, Lieby and MacRae

ATTACHMENT 1

Response to Comments on Private Well Sampling Plan

- The locations of the wells as listed in Table 1-1 through 1-4 are presented in Figure 1.3.
- The analytical testing method detection limits and sampling and preservation procedures are presented in Table 1-5.
- The attestation as required by the AOC is presented following the title page of the Private Well Sampling Plan.
- The well sampling area has been delineated with boundaries and is shown within Figure 2-1. In addition, the properties at Non-responsive Non-responsive have been included as part of the sampling plan.
- The appropriate documentation for sample preservation has been included within Section 2.3.
- A statement that indicates that the analysis of the private wells will include VOCs as indicated in Table 2-3 is presented in the third paragraph of Section 2.5.
- In order to provide detection limits below the maximum contaminant levels as specified by the U.S. EPA Method 8260 has been proposed for VOCs.
- The inorganic analytes as specified in the comments have been included within Table 2-2 and 2-4.
- Justification for excluding the 40 CFR 264 Appendix IX parameters has been included within Section 2.5 second paragraph.
- The identified laboratory to conduct analysis of samples has been included within Section 2.5 first paragraph.
- Section 3 has been revised to delete specific schedule requirements and has been revised to state that the schedule will follow and dictates stated in Section VI. II. and III. of the AOC.

THREE HAWTHORN PARKWAY, SUITE 400
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17 May 1993

Mr. William Buller
U.S. Environmental Protection Agency
Region V
RCRA Enforcement Branch (HRE-8J)
77 West Jackson
Chicago, IL 60604

Re: Private Well Sampling Plan (PWSP)
Techalloy Company, Inc.
ILD 005 178 975

Dear Mr. Buller:

Roy F. Weston, Inc. (WESTON®) is writing in regards to your instructions regarding quality assurance information for the Techalloy Private Well Sampling Plan (PWSP) as stated in your letter of 20 April 1993 to Mr. Henry Lopes of Techalloy Company, Inc. The letter stated that "a complete Quality Assurance Project Plan (QAPjP) does not have to be included in the PWSP. Instead, the appropriate quality assurance information pertaining to the PWSP should be included in the QAPjP portion of the RCRA Facility Investigation Work Plan." Techalloy and WESTON received this information on 21 April 1993 only two full working days prior to shipment of the RFI documents to U.S. EPA. Due to insufficient time, the QAPP could not be changed to incorporate this information and meet the required QAPjP submission date.

On 14 May 1993, you requested that Techalloy prepare a mini-QAPjP for the PWSP. On the afternoon of 14 May 1993, Robert Gilbertsen from WESTON requested from Mr. Buller approval to prepare an addendum to the existing QAPjP as opposed to a mini-QAPjP. Mr. Buller was in agreement. Therefore, Techalloy will proceed with the preparation of an addendum to the existing QAPjP.

In a separate matter, WESTON contacted Mr. William Buller of the U.S. EPA on 12 May 1993 and 13 May 1993 via fax (see attached) requesting a 15-day extension to the submittal date of the revised PWSP. Techalloy has encountered delays with the local newspaper in running an advertisement to identify any additional local private well owners. In 1990, a similar advertisement was published by Techalloy. In order to further provide certainty as to the location of any private wells, Techalloy has decided to run this recent advertisement. The advertisement requests all local private well owners to contact Techalloy Company in Union, Illinois. In a conversation on 13 May 1993 with Mr. Buller regarding the submittal extension, Mr. Buller stated he would not grant Techalloy an extension to allow time for

incorporation of additional information generated from responses to the advertisement. He also stated that the PWSP would be due 30 days after receipt of U.S. EPA's comments. Mr. Buller stated that Techalloy could submit the PWSP late to allow time to incorporate any additional information gained from the advertisement, and therefore risk the potential of stipulated penalties. Techalloy has and is proceeding in a good faith attempt to ensure accurate and complete information regarding the number and locations of private wells that exist in the Union area.

WESTON was informed on the morning of 14 May 1993, that the advertisement was printed in the Northwest Herald on 14 May 1993. Any information obtained from this notice will be incorporated into the PWSP during the week of 17 May 1993 and as per the Consent Order will be submitted to the U.S. EPA and IEPA on 21 May 1993. Any additional information regarding existing well locations will be evaluated and included in the PWSP at a later date as an addendum.

If you have any questions or comments regarding these issues please do not hesitate to contact me at (708) 918-4000.

Very truly yours,

ROY F. WESTON, INC.

John M. Thorsen for

Carlos J. Serna, P.G.
Senior Project Manager

CJS:sk

cc: John Thorsen - WESTON
Henry Lopes - Techalloy
Richard Perlick - Techalloy
Joseph M. Boyle - U.S. EPA
Kevin Lesko - IEPA

D.2.6

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17 May 1993

Mr. William Buller
U.S. Environmental Protection Agency
Region V
RCRA Enforcement Branch (HRE-8J)
77 West Jackson
Chicago, IL 60604

Re: Private Well Sampling Plan (PWSP)
Techalloy Company, Inc.
ILD 005 178 975

Dear Mr. Buller:

Roy F. Weston, Inc. (WESTON®) is writing in regards to your instructions regarding quality assurance information for the Techalloy Private Well Sampling Plan (PWSP) as stated in your letter of 20 April 1993 to Mr. Henry Lopes of Techalloy Company, Inc. The letter stated that "a complete Quality Assurance Project Plan (QAPjP) does not have to be included in the PWSP. Instead, the appropriate quality assurance information pertaining to the PWSP should be included in the QAPjP portion of the RCRA Facility Investigation Work Plan." Techalloy and WESTON received this information on 21 April 1993 only two full working days prior to shipment of the RFI documents to U.S. EPA. Due to insufficient time, the QAPP could not be changed to incorporate this information and meet the required QAPjP submission date.

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WESTON was informed on the morning of 14 May 1993, that the advertisement was printed in the Northwest Herald on 14 May 1993. Any information obtained from this notice will be incorporated into the PWSP during the week of 17 May 1993 and as per the Consent Order will be submitted to the U.S. EPA and IEPA on 21 May 1993. Any additional information regarding existing well locations will be evaluated and included in the PWSP at a later date as an addendum.

If you have any questions or comments regarding these issues please do not hesitate to contact me at (708) 918-4000.

Very truly yours,

ROY F. WESTON, INC.

Carlos J. Serna, P.G.
Senior Project Manager

CJS:sk

cc: John Thorsen - WESTON
Henry Lopes - Techalloy
Richard Perlick - Techalloy
Joseph M. Boyle - U.S. EPA
Kevin Lesko - IEPA

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11 May 1993

Mr. William Buller
United State Environmental Protection Agency
Region V
RCRA Enforcement Branch (HRE-8J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Techalloy Company, Inc. Private Well Sampling Plan

Dear Mr. Buller:

On behalf of Techalloy Company, Inc., Roy F. Weston, Inc. (WESTON®) is requesting an extension of the 30 day time frame for resubmittal of the Techalloy RFI Private Well Sampling Plan (PWSP). WESTON is requesting a 15 day extension to 4 June 1993, so that Techalloy can ensure the accuracy and completeness of the list of private wells to be sampled within the private well sampling boundary.

Presently Techalloy is awaiting public response to an advertisement in the local daily newspaper, The Northwest Herald, soliciting all private well owners in the vicinity to contact Techalloy in Union, Illinois. The advertisement is scheduled to run on 11, 12, and 13 May, 1993.

An extension of the resubmittal due date to 4 June 1993 will allow time for public response and time for WESTON to assess and incorporate any new information into the PWSP.

Please contact WESTON with your decision by 14 May 1993. If you have any questions or require any additional information, please do not hesitate to contact WESTON at (708) 918-4000.

Very truly yours,

ROY F. WESTON, INC.

Carlos J. Serna
Project Manager

cc: Henry Lopes, Techalloy

CH01\PUBLIC\WO\W1500\10467.LTR

WESTON®
MANAGERS DESIGNERS/CONSULTANTS
THREE HAWTHORN PARKWAY, SUITE 400
VERNON HILLS, IL 60061-1450
708-918-4000 • FAX: 708-918-4055

13 May 1993

Mr. William Buller
United State Environmental Protection Agency
Region V
RCRA Enforcement Branch (HRE-8J)
77 West Jackson Boulevard
Chicago, Illinois 60604

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cc: Henry Lopes, Techalloy

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Carlos J. Serna
Project Manager

cc: Henry Lopes, Techalloy

CH01\PUBLIC\WO\W1500\10467.LTR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

APR 20 1993

REPLY TO THE ATTENTION OF:

HRE-8J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Henry Lopes
Techalloy Company, Inc.
370 Franklin Turnpike
Mahwah, New Jersey 07430

Re: Private Well Sampling Plan (PWSP)
Techalloy Company, Inc.
ILD 005 178 975

Dear Mr. Lopes:

The United States Environmental Protection Agency (U.S. EPA) has reviewed the "Private Well Sampling Plan (PWSP) - February 1993" which was submitted pursuant to the Administrative Order On Consent (AOC), Docket NO. V-W 007-93. Due to significant deficiencies, the PWSP dated February 1993 is disapproved by U.S. EPA. To obtain U.S. EPA's approval, it is recommended that the revisions as noted in Attachment I be incorporated in a revised plan. Pursuant to Section VI.H of the AOC, Respondent has thirty (30) days from its receipt of this letter to submit the revised PWSP to U.S. EPA.

The most significant deficiency of the PWSP is the omission of the attestation required in Section VI.A.1 of the AOC. This Section specifies that the PWSP include an attestation by the Respondent that the list of properties with water wells is complete and up to date. It is critical that all residential wells in the potential area of contamination be identified. Pursuant to Section VI.A.1 of the AOC, it is Respondent's responsibility to assure all such wells are identified.

To expedite the sampling program, a complete Quality Assurance Project Plan (QAPjP) does not have to be included in the PWSP. Instead, the appropriate quality assurance information pertaining to the PWSP should be included in the QAPjP portion of the RCRA Facility Investigation Work Plan.

If you have any questions please call Mr. William Buller of my staff at (312) 886-4568.

Sincerely yours

Joseph M. Boyle

Joseph M. Boyle, Chief
RCRA Enforcement Branch

cc: Kevin Lesko, IEPA
Carlos Sernas, Weston

ATTACHMENT I
COMMENTS ON PRIVATE WELL SAMPLING PLAN - FEBRUARY 1993

Section 1-3. Show the locations of the wells listed in tables 1-1 through 1-4 on a scaled map.

For the wells listed in tables 1-1 through 1-4 provide the following additional information: compounds analyzed, analytical test methods used and detection limits, sampling and preservation procedures.

Section 2.1. Provide attestation as required in Section VI.A.1. of the AOC. The attestation shall cover the area of potential contamination and include a map which shows all private wells within the potential area of contamination.

The well sampling area should be delineated with boundaries that completely enclose the area and include all critical wells. The property at Non-responsive Non-responsive should be included.

Section 2.3. Hydrochloric acid is proposed for volatile organic compounds (VOCs) sample preservation. This method of preservation is not recommended in "RCRA Groundwater Monitoring Technical Enforcement Guidance Document U.S. EPA - September 1986". Provide appropriate reference for this method of sample preservation or follow the above U.S. EPA guidance document.

Section 2.5. This paragraph should include the statement that analysis of private well samples will include all VOCs of Table 2-2.

Analytical methods for VOCs shall be those approved by U.S. EPA and which have detection limits equal to or below the Maximum Contaminant Level specified by U.S. EPA, or the concentration level established by the criteria given in Section VI. A.2. of the AOC.

The following inorganic analytes shall be included in the sample analysis: nickel, copper, lead, chromium, cadmium, arsenic, mercury, barium, cyanide, sulfate, and nitrate. Include a table which presents the analytical and preservation methods to be employed for all analytes.

Provide groundwater analytical data (with appropriate quality assurance) or rationale to justify exclusion of the 40 CFR 264 Appendix IX parameters not listed in Table 2-2.

Section 2.6 Identify laboratory(s) to be used for analyses of samples.

Section 3.1 Omit this section: the schedule and dictates stated in Section VI.2.and 3. of the AOC shall be followed.

PRIVATE WELL SAMPLING PLAN

Prepared for

TECHALLOY COMPANY, INC.
Union, Illinois

Prepared by

ROY F. WESTON, INC.
Three Hawthorn Parkway
Vernon Hills, Illinois 60061

May 1993
Revised July 1993

Work Order No. 01989-009-001

PRIVATE WELL SAMPLING PLAN

Prepared for

TECHALLOY COMPANY, INC.
Union, Illinois

May 1993

Tracy Harding
Assistant Geologist

Carlos J. Serna, P.G.
WESTON Project Manager

Henry Lopes
Techalloy Vice President

John W. Thorsen, P.E.
WESTON Project Director

Prepared by

ROY F. WESTON, INC.
Three Hawthorn Parkway
Vernon Hills, Illinois 60061

Work Order No. 01989-009-001

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TECHALLOY COMPANY, INC. Certification:

Private Well Sampling Program

I certify that the information listing the location of all private wells found near or at groundwater potentially impacted by the Techalloy facility operations, which is contained in the Private Well Sampling Plan, is based upon Techalloy's notification of the public by publication in a local newspaper in 1990 and again in 1993 and during a Union, Illinois public meeting in 1990, and reflects all responses received from the public due to the aforesaid notifications by Techalloy. I further certify that the Private Well Sampling Plan is true, accurate and complete, to the best of my knowledge. For these portions of the Private Well Sampling Program that I cannot personally verify are true and accurate, I certify as the Company official having supervisory responsibility for the person who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

5/19/93
Date

Henry Lopes
Vice President Technical
Techalloy Company, Inc.

SECTION 1
INTRODUCTION

1.1 PURPOSE AND SCOPE

Roy F. Weston, Inc. (WESTON®) has prepared this Private Well Sampling Plan (PWSP) for Techalloy Company, Inc. (Techalloy) located in Union, Illinois (Figure 1-1). This plan is prepared in accordance with the Administrative Order on Consent issued to Techalloy by the United States Environmental Protection Agency (U.S. EPA). The Administrative Order required that the PWSP be submitted to U.S. EPA 30 days after the effective date of the Order. The Order also required that the RFI Work Plan be submitted 90 days after the effective date. The PWSP was prepared consistent with these submittal deadlines as a stand-alone document. The PWSP was approved by U.S. EPA with some modifications and sampling activities were initiated. The PWSP is presented here for convenience. The required modifications have been incorporated. The PWSP addresses the sampling of groundwater wells on private properties that may potentially be impacted by constituents in the groundwater migrating from the Techalloy facility.

1.2 SITE HISTORY

Techalloy is located on the northwest corner of the intersection of Olson Road and Jefferson Street in Union, Illinois. Techalloy has been operating this steel wire drawing facility since 1960, and currently processes steel and nickel alloy rod. The unprocessed metal rod is annealed and drawn into coils or spools of wire of varying tensile strengths and diameters. A variety of coatings and cleaners is utilized in the production processes, including acidic and caustic cleaners, coating solutions, dyes and rinses.

U.S. Testing, Inc. performed an environmental assessment of Techalloy in January 1990. As a follow-up to this assessment, WESTON, under contract to Techalloy, performed groundwater sampling at on-site and off-site locations. The results of this sampling indicated that volatile organic compounds (VOCs) were migrating off site toward the northwest.

LIST OF FIGURES

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5/19/93
Date

Henry Lopes
Vice President Technical
Techalloy Company, Inc.

INORGANIC ANALYSIS PROTOCOL
Analysis of Metals by Inductively Coupled Argon Plasma (ICAP) (Simultaneous Operation)

These Approval Signatures Are Kept on File
with WESTON®'s Analytics Division
QA Standard Practice Records

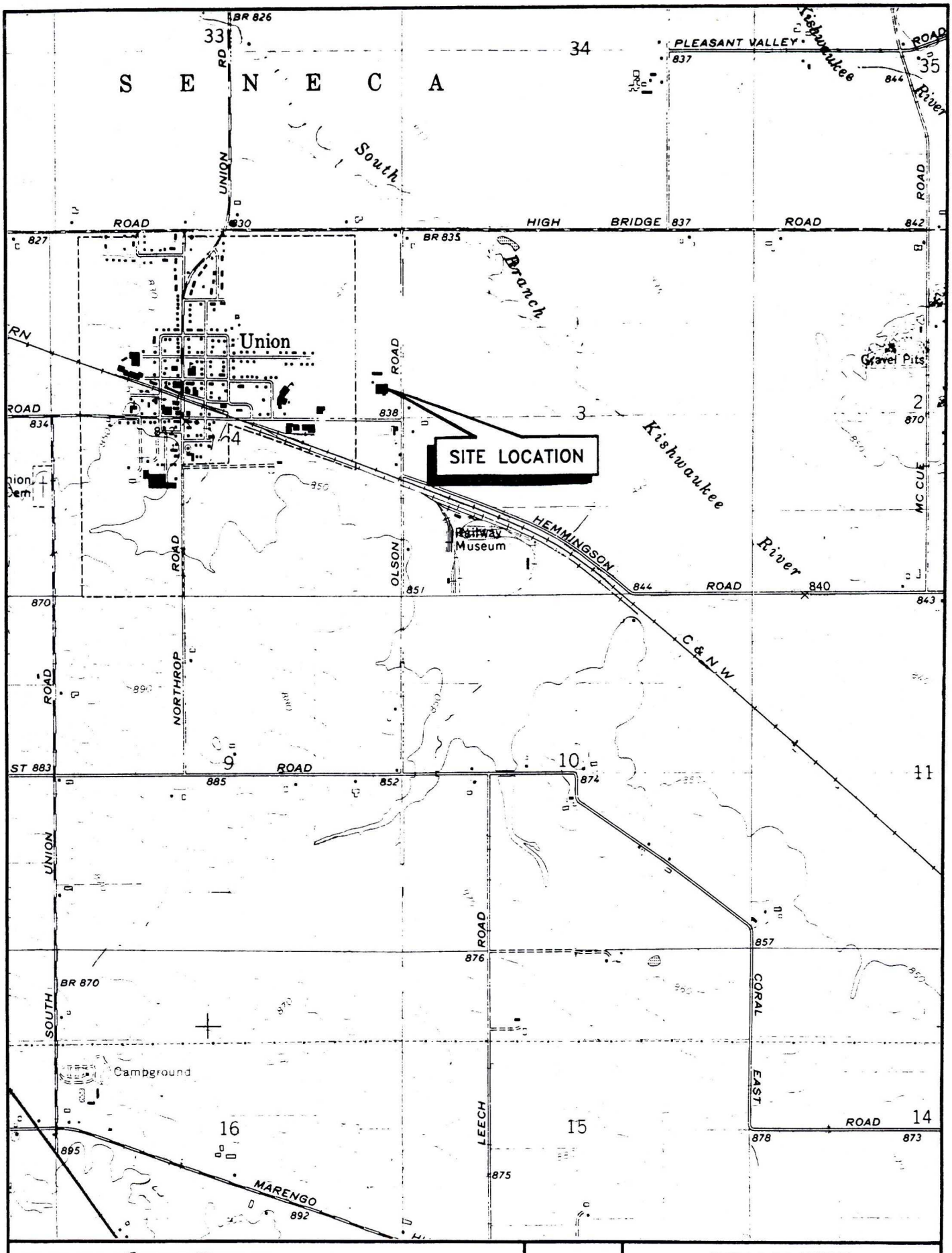
REVISION NUMBER: 02

	Printed Name:	Signature/Date:
Written By:	Jodi Wojcik ICP/Metals Preparation Unit Leader	Jodi L. Wojcik 7/13/93
Approved By:	Mani S. Iyer Metals Section Manager	Mani S. Iyer 7/13/93

Historical File: Revision 00: 08/28/90
Revision 01: 02/05/93
Revision 02: 07/13/93

Reasons for Change, Revision 02:

- Serial dilutions performed per each analytical batch
- Silicon spike concentration changed from 1 mg/L to 5 mg/L (Appendix E)



WESTON MANAGERS DESIGNERS/CONSULTANTS	Three Hawthorn Parkway Vernon Hills, Illinois 60061	FIGURE 1-1	SITE LOCATION TECHALLOY COMPANY. INC. Union, Illinois

REV.

In February 1991, WESTON initiated a Phase II investigation to further define the groundwater contaminant plume. Groundwater probe samples were collected downgradient from the Techalloy facility in order to delineate the lateral extent of contamination. These samples were analyzed on site for trichloroethane (TCA), trichloroethene (TCE) and tetrachloroethene (PCE).

In order to confirm the groundwater probe results and define the vertical extent of constituents, additional groundwater samples were collected through lead screen augers and sent to WESTON-Gulf Coast Laboratories in University Park, Illinois for analysis. The results of both sampling events are summarized on Figure 2-10 of the QAPP. The probe sample locations are designated WS, and the lead screen auger sample locations are designated TW.

1.3 SUMMARY OF PREVIOUS PRIVATE WELL SAMPLING

Techalloy completed four rounds of private well sampling from June 1990 to September 1991. Groundwater samples were collected from 17 private wells, with a different number and combination of wells sampled during each sampling event. The locations of the 17 wells are presented in Figure 1-2. Analytical results for the four rounds of sampling are summarized in Tables 1-1 through 1-4. Table 1-5 summarizes the sampling dates and analytical procedures associated with each round of sampling. Analytical results indicated that 6 of the 17 private wells had detectable levels of VOCs. TCE was the only VOC detected above the maximum contaminant level (MCL) of 5.0 μg/L, and was detected at the private well located at the Non-responsive . This well is located within the identified constituent plume.

The procedures used for collecting private well samples were consistent with the procedures presented in Section 2 of the PWSP.

Non-responsive

Table 1-1

Volatile Organic Compound Analytical Results
Private Well Samples
Union, Illinois
June 1990
(Concentrations in µg/L)

Parameters	Sample Locations			
	Non-responsive			
Methylene chloride	12	8	18	7
1,1,1-Trichloroethane	5	ND	ND	4 J

J - Estimated value below detection limit.
ND - Analyte not detected above method detection limit.
* - Exact address not identified.

Table 1-2

Volatile Organic Compounds Analytical Results
Private Well Samples
Union, Illinois
December 1990
(Concentrations in µg/L)

Compound	Non-responsive								
Chloroform	ND	ND	ND	1	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	9	ND	ND	4	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	2	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	4	ND	ND	2	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	2	ND	ND

ND - Analyte not detected above method detection limit.

Table 1-3

Volatile Organic Compound Analytical Results
Private Well Samples
Union, Illinois
January 1991
(Concentrations in µg/L)

Parameter	Non-responsive			So Good Barbeque Jefferson St.
1,1,1-Trichloroethane	ND	ND	ND	ND

ND - Analyte not detected above method detection limit.

Table 1-4

Volatile Organic Compound Analytical Results
Private Well Samples
Union, Illinois
September 1991
(Concentrations in µg/L)

Parameter	Sample Location
	Non-responsive
Methylene chloride	16 B
Acetone	4 JB
1,1,1-Trichloroethane	31
Trichloroethylene	8

B - Analyte detected in blank.
J - Estimated value below detection limit.

Table 1-5

Previous Private Well Sampling Summary
Techalloy Company, Inc.
Union, Illinois

Sampling Date	VOCs Analyzed	Analytical Method	Detection Limits	Sample Preserved with HCL
June 1990	HSL	SW-846 8240	5-10 ug/L	No
June 1990	HSL	SW-846 8240	5-10 ug/L	Yes
December 1990	DWC	EPA 524	5-10 ug/L	Yes
September 1991	HSL	SW-846 8240	5-10 ug/L	Yes

VOC - Volatile Organic Compound
HSL - Hazardous Substance List
DWC - Drinking Water Compounds

SECTION 2

SAMPLE NETWORK DESIGN AND RATIONALE

2.1 OBJECTIVES OF THE SAMPLING PROGRAM

The sampling program to be undertaken as part of the Techalloy facility RFI/CMS involves the collection and analysis of data in order to accomplish the following objectives:

- Assess potential releases from the solid waste management units (SWMUs).
- Determine the vertical and horizontal extent and magnitude of constituents in the source area(s).
- Determine the vertical and lateral extent and magnitude of constituent migration in groundwater.
- Screen and evaluate appropriate remedial alternatives.

Table 2-1 presents the objectives of each task to be performed and the rationale. Table 2-2 presents a summary of the sampling effort under the RFI, including type of sample collected, parameters analyzed, and number of samples collected.

The following subsections present the sampling network design and rationale that has been developed to satisfy the RFI objectives.

2.2 PHASE I INVESTIGATION ACTIVITIES

The Phase I investigation activities will include subsurface soil sampling and groundwater sampling in five specific areas. These areas are in and around the five Solid Waste Management Units (SWMUs) identified in the U.S. EPA Consent Order issued to Techalloy

the BG-5 oil drum, plating wastewater, and concrete evaporation pad SWMUs to north of the north fence line of the operational portion of the site. The perimeter borings will be advanced through the vadose zone soils with samples collected for analysis at 1 to 2 and 5 to 6 feet bgs at each location (Table 2-2).

Three borings located on the downgradient side (northwest) of the pond (HP-01, HP-02, and HP-06) and one boring located downgradient (northwest) of the east end of the pond (HP-04) will be advanced below the water table for collection of shallow groundwater samples (Figure 2-2). These groundwater samples will be analyzed to determine if constituents associated with the pond have migrated vertically to the groundwater pathway (Table 2-2).

The boring at the downgradient (northwest) corner of the grid (HP-01) will be continued to the base of the aquifer to allow for the collection of a groundwater sample at the base of the aquifer. This sample will be analyzed to determine if chemical constituents originating from the holding pond are present at the base of the aquifer at this specific point in the groundwater pathway (Table 2-2).

Plating Wastewater Disposal Area

Four soil borings (WW-01 through WW-04) will be advanced near the plating wastewater discharge area to determine the magnitude and lateral and vertical extent of potential constituent migration from this potential source area (Figure 2-2). One soil boring (WW-04) will be advanced adjacent to the suspected point of discharge. Three borings (WW-01, WW-02, and WW-03) will be advanced 50 feet northwest, northeast, and west, respectively, of the suspected discharge point. This placement of the borings encompasses the area potentially impacted by discharged plating wastewater. The borings will cover the area north of the facility structure, east of the sampling area around the BG-5 oil drum SWMU, south of the sampling area around the spent acid holding pond, and west of the sampling area around the concrete evaporation pad. The borings will be advanced through the vadose zone, and analytical samples will be collected at 1 to 2 feet and 5 to 6 feet bgs to characterize the horizontal and vertical extent of constituents related to this potential source area (Table 2-2).

Boring CP-03 is located on the northern fringe of the concrete evaporation pad, and 30 feet east of the suspected discharge point of plating wastewater. Sampling at this location will determine the potential impact from both of these SWMUs.

The soil samples from boring CP-03 will be analyzed for the plating wastewater parameters (i.e., VOCs, selected Appendix IX metals and cyanide) and are therefore included in the ten soil samples indicated on Table 2-2 for the plating wastewater area. The VOC and metals results will also be applicable to the concrete evaporation pad area but are not included in the 18 indicated samples for the evaporation pad area.

Shallow monitoring well MW-10 is situated approximately 10 feet north of the suspected wastewater discharge point. In conjunction with the existing monitoring well sampling, this well will be sampled for the SWMU area parameters presented in Table 2-2 under plating wastewater disposal area groundwater sampling. This analysis will determine whether constituents originating in this area have migrated vertically to the groundwater pathway (Table 2-2).

Cyanide is a parameter of concern only at the plating wastewater SWMU. Monitoring well MW-10 was sampled in July 1992, the result of analysis for cyanide at a reporting limit of 0.010 mg/L was nondetect. Based on this result it has been determined that cyanide has not reached the groundwater pathway in this SWMU area. Therefore, cyanide is not included in the plating wastewater area groundwater analysis (Table 2-2). Cyanide is not a parameter of concern in the other four SWMU areas. Therefore cyanide is not included in any other oil or groundwater analyses.

Concrete Evaporation Pad

Ten soil borings (CP-01 through CP-10) will be advanced in and around the concrete evaporation pad to determine the magnitude and lateral and vertical extent of constituent migration from this potential source area. The borings will be advanced through the vadose zone soils and samples will be collected for analyses at 1 to 2 feet and 5 to 6 feet bgs (Table 2-2).

these analyses is to establish background concentrations of constituents indigenous to the area. The background concentrations will be compared statistically to concentrations detected on site to establish their significance. Assuming a roughly normal distribution, the T-statistic will be used to provide a 95 percent confidence interval on concentrations.

The exact locations of the six background borings will depend on physical and legal access and will be finalized prior to initiating the on-site boring activities. To minimize the potential obsticals involved in physical and legal access for the borings, the borings have been located along the township road right-of-ways. This will allow for easy physical access to the boring locations and access permission from one source.

Background Boring BK-01 will be located approximately 500 feet north of the intersection of Olson and Jefferson Roads on the east side of Olson Road. Boring BK-02 will be located immediately east of the intersection of Olson and Jefferson Roads. Boring BK-03 will be located approximately 500 feet west of the intersection on the south side of Jefferson Road. Boring BK-04 will be located approximately 500 feet south of the intersection on the east side of Olson Road. Boring BK-05 will be located approximately 500 feet east of the intersection of Olson and Hemmingson Roads on the north side of Hemmingson Road. Boring BK-06 will be located approximately 500 feet east of boring BK-05 on the north side of Hemmingson Road.

Analyses of the background soil and groundwater samples are presented in Table 2-2.

Groundwater

Based on the available information gathered to date on the Techalloy facility, groundwater is known to be the primary migration pathway for constituents migrating from the facility. WESTON's report, "Phase II Soil and Groundwater Investigation," dated June 1991 documented the magnitude and lateral and vertical extent of the downgradient constituent migration in the groundwater. Therefore, pathway characterization under Phase I of the